'ME AND MY MICRO'

PROGRAM TRANSLATIONS

For The

ATARI

★

COMMODORE 64

★

DRAGON

★

MTX

★

ORIC

★

SHARP

★

TANDY

★

VIC 20

Published By

Computer Training College

Due to our desire to present this book to you intime for you to follow the 'ME AND MY MICRO' Program on your own machine, we have incurred some minor errors.

The Computer Training College would like to apologise for any inconvenience this might cause, and you can be assured the embarrassment is ours.

Once again, we appologise for any difficulty caused, we will pull out all the stoppers to make sure it never ever happens again.

Please substitute the following lines for those printed where appropriate.

GENERAL ANAGRAMS PROGRAM - PAGE 4

```
2030 LET N=INT(RND(8)*L)+1
MTX USERS ONLY - 2030 LET N=INT(RND*L)+1
```

ATARI SECTION
MONSTERZAP CORE LISTING PAGE 5

```
187 POKE 764,0
```

MONSTERZAP IMPROVED

```
LINE 180 between lines 70 and 100 should be 80 GOSUB 2000
LINE 100 REM DRAW SCENE should be 105 REM DRAW SCENE
3110 POSITION N*7,M:PRINT "(RVS)(CTRL)I(RVS)(CTRL)Y"
```

ANAGRAMS 100 PAGE 7

```
2056 IF LEN(A$)=1 THEN J$(LEN(C$),LEN(C$))=A$:A$=""
```

QUACMAN PAGE 8

```
1020 C=0
3050 IF KEY$="\" THEN R=R-1
```

MATCHEM PAGE 9

```
20 REM COPYRIGHT FRED HARRIS
45 REM INITIALISE
2050 N=I-5*M-1
```

COMMODORE 64 AND VIC 20 SECTION
MONSTERZAP CORE LISTING PAGE 11

```
COMMODORE 64 Variations
160 FOR C=1 TO 40
170 LET S$ = RIGHT$(S$,1)+LEFT$(S$,39)
DELETE LINE 177
1000 LET S$="*(39 SPACES)"
1010 LET E$="(40 SPACES)"
5010 LET A$=LEFT$(A$,C)+" "+RIGHT$(A$,37-C)
5020 LET B$=LEFT$(B$,C)+" "+RIGHT$(B$,37-C)
5030 LET C$=LEFT$(C$,C)+" "+RIGHT$(C$,37-C)
5040 LET D$=LEFT$(D$,C)+" "+RIGHT$(D$,37-C)
```

MAIN PROGRAM

```
50 GOSUB 1000
DELETE LINE 177
3405 PRINT "(HOME)(10 CD)" : PRINT A$:PRINT B$:PRINT C$:PRINT D$
5000 PRINT "(HOME)(10 CD)"
5050 PRINT A$:PRINT B$:PRINT C$:PRINT D$
```

MONSTERZAP IMPROVED Commodore 64 only PAGE 12

```
165 IF C=0 THEN 210
170 IF C>0 THEN LET S$=RIGHT$(S$,1)+LEFT$(S$,39)
175 IF C<0 THEN LET S$=RIGHT$(S$,39)+LEFT$(S$,1)
3135 PRINT " ";CHR$(64);" ";CHR$(64);" "
3140 NEXT N
3450 PRINT "(HOME)";LEFT$(X$,7*N+1);LEFT$(Y$,L):CHR$(95);CHR$(95)
5060 PRINT "(HOME)";LEFT$(X$,ABS(C));LEFT$(Y$,13);CHR$(92)
```

QUACMAN Commodore 64 variations PAGE 15

```
140 IF C<38 THEN GOTO 130
```

MATCHEM PAGE 16

```
250 IF SCRE <> 10 THEN 110
5010 LET J$=LEFT$(J$,I-1)+"-"+RIGHT$(J$,LEN(J$)-I)
```

TANDY AND DRAGON SECTION
MONSTERZAP CORE PROGRAM PAGE 18

```
160 FOR C = 0 TO 31
5000 FOR I=288 TO 384 STEP 32
```

QUACMAN PAGE 21

```
2020 PRINT@((C+2)+(H*32))," ";
3090 RETURN
```

MATCHEM PAGE 21

```
124 REM SHOW CARD
125 GOSUB 3000
182 FOR T=1 TO DE:NEXT T
1080 LET N=RND(L)
1148 LET PO=(N*4+5)+(3*(M*32))
6010 PRINT@(5+N1*4+(3*M1)*32),FG;
6030 PRINT@(5+N*4+(3*M)*32),I;
```

MTX SECTION
MONSTERZAP CORE LISTING PAGE 24

```
3010 CSR 0,11: PRINT "HH \ / HH \ / HH \ / HH \ / HH \ / HH "
```

MONSTERZAP IMPROVED PAGE 25

```
185 LET K$=INKEY$:IF K$<>"F" AND K$<> "F" THEN LET Z=1
190 IF Z=1 AND (K$="F" OR K$="f") THEN LET Z=0:GOSUB 5000
3010 VS 4:CLS:CSR 0,14
```

QUACMAN PAGE 26

```
186 IF A$<>"N" AND A$<>"n" THEN GOTO 180
1010 LET R=0
1040 PRINT "I I I I I I I I I I I I I I I I"
```

ORIC SECTION
MONSTERZAP IMPROVED PAGE 30

```
3090 PRINT@N*7+2,M;"CC"
```

MATCHEM PAGE 32

```
230 PRINT@14,17;"TRIES";G
240 PRINT@14,19;"SCORE";S
1150 PRINT@4*N+8,3*M;N+5*M+1
2007 PRINT@2,20;"(20 SPACES)"
3095 PRINT@3*N+9,3*M;X$
3100 PRINT@3*N+9,3*M+1;Y$
4010 IF MID$(J$,FG,1)=MID$(J$,I,1) THEN LET MA=1
6040 PRINT@4*N1+8,3*M1;FG
6050 PRINT@4*N1+9,3*M1+1;"  ":REM 2 SPACES
6060 PRINT@4*N+8,3*M;I
6070 PRINT@4*N+9,3*M+1;"  ":REM 2 SPACES
```

The programs in this section were written for the Oric Atmos. However if you own an original Oric 1 then change all PRINT@ statements to PLOT and the semicolon (;) in that line to a comma (,) e.g. Line 170 in MONSTERZAP CORE LISTING will read 170 PLOT C,R,"*"

SHARP 700 SECTION
MONSTERZAP CORE LISTING PAGE 34

```
185 GET K$
190 IF K$="F" THEN GOSUB 5000
191 IF K$="f" THEN GOSUB 5000
5040 CURSOR C,I:PRINT " "
```

MONSTERZAP IMPROVED PAGE 35

```
170 CURSOR ABS(C),R:PRINT (7,5) CHR$(96)
3030 PRINT (7,5) "(40 SPACES)"
5060 CURSOR ABS(C),I-1:PRINT (0,5) " "
```

MATCHEM PAGE 36

```
140 GOSUB 2000
2007 CURSOR 0,18
2020 IF I<1 THEN 2000
2021 IF I>20 THEN 2000
2023 IF C$="-" THEN 2000
3010 IF C$="B" THEN LET X$="/\":LET Y$="\/":LET F=1
5030 TEMPO 7
```

The brackets immediately after the print statements should be square and not round as shown, this is due to a technical fault in the type setting.

For MZ80A users please ignore these brackets and the numbers inside them as they refer to colour coordinates.

☆☆☆☆☆☆☆☆☆☆

ME AND MY MICRO

TELEVISION SERIES

Produced by

YORKSHIRE TELEVISION LIMITED

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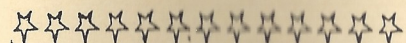
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TRANSLATIONS BY

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———————

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CONTENTS

This ANAGRAMS program will work on all machines except for the ATARI which is listed in the ATARI section.

TANDY and DRAGON machines require line 2030 to be changed to

2030 LET N=RND(L)

MTX machines require that a space is left between the function LEN and its argument in lines 2010 and 2020.

```
2010 FOR K=1 TO LEN (C$)
2020 LET L=LEN (A$)
```

```
10 REM ANAGRAMS
20 REM COPYRIGHT FRED HARRIS
25 REM GENERAL MACHINE VERSION: MIKE MOORE
30 REM****************************
40 INPUT A$
50 LET C$=A$
70 FOR M=1 TO 100
80 GOSUB 2000: REM SHUFFLE
100 PRINT J$
110 LET A$=C$
120 NEXT M
130 REM****************************
140 END
150 REM****************************
1980 REM SHUFFLE
2000 LET J$=""
2010 FOR K=1 TO LEN(C$)
2020 LET L= LEN(A$)
2030 LET L=INT(RND(8)*L)+1
2040 LET J$=J$+MID$(A$,N,1)
2050 LET A$=LEFT$(A$,N-1)+RIGHT$(A$,L-N)
2060 NEXT K
2070 RETURN
```

If you ever 'break' into a program (using the BREAK key) then you may be interested to know that the instruction CONT will restart the program from where you left off, providing that you have not changed any of the program lines. This will be useful if you wish to see the first few words that are generated by the previous ANAGRAMS program. All you will need to do is 'break' into it, have a good look and then CONT to get the next set of words.

By adding a comma (,) after J$ in line 100 i.e. 100 PRINT J$, you will be able to see the anagrams appear upto five a time on one line. You will have to be careful not to choose too long a word, as this will give you some very strange columns.

The loop beginning at line 70 decides how many anagrams will be generated by the program. If this line is changed say to:-

FOR M=1 TO 50

then fifty anagrams will be produced.

ATARI SECTION

If you see any characters that are used in a print statement enclosed by brackets, i.e. PRINT "(RVS)(CTRL)Y", you should press the appropriate function keys on your computer.

(CLEAR) is the clear key on the top right of the keyboard.
(ESC)   is the escape key on the left hand side.
(CTRL) is the control key again on the left hand side.
(RVS)   is the control key at the bottom right hand side. If you press this key you will get reversed characters!
(SPACE) has been used to denote the space bar as a matter of clarity when included in a confusing PRINT statement.

```
10 REM MONSTERZAP
12 REM CORE LISTING
20 REM COPYRIGHT FRED HARRIS
25 REM ATARI VERSION: MIKE MOORE
30 REM ****************************
40 REM INITIALISE
50 GOSUB 1000
60 REM ****************************
100 REM DRAW SCENE
110 GOSUB 3000
120 REM ****************************
150 REM MAIN MOVEMENT LOOP
160 FOR COLUMN=0 TO 36
170 POSITION COLUMN,ROW:PRINT "*"
180 FOR TIME = 1 TO DELAY :NEXT TIME
185 KEY=PEEK(64401+PEEK(764))
190 IF KEY=ASC("F") THEN GOSUB 5000
195 POKE 764,ASC("S")
200 POSITION COLUMN,ROW:PRINT " "
210 NEXT COLUMN
220 GOTO 160:REM REPEAT MAIN LOOP
230 REM ****************************
240 END
250 REM ****************************
990 REM INITIALISATION
1000 ROW=2
1005 PRINT "(ESC)(CTRL)(CLEAR)"
1010 SHOTS=0
1020 DELAY=25
1030 POKE 752,1
1080 RETURN
1090 REM ****************************
2990 REM DRAW SCENE
3000 POSITION 0,10:PRINT "HH      HH      HH      HH      HH      HH"
3010 POSITION 0,11:PRINT "HH \ / HH \ / HH \ / HH \ / HH \ / HH"
3020 POSITION 0,12:PRINT "HH O*O HH O*O HH O*O HH O*O HH O*O HH"
3030 POSITION 0,13:PRINT "HH < > HH < > HH < > HH < > HH < > HH"
3410 POSITION 0,18:PRINT "0    SHOTS USED"
3420 RETURN
3430 REM ****************************
4990 REM ZAP
5000 FOR INDEX = 10 TO 13
5040 POSITION COLUMN,INDEX:PRINT " "
5050 NEXT INDEX
5080 SHOTS=SHOTS+1
5090 POSITION 0,18:PRINT SHOTS
6000 IF SHOTS=40 THEN POKE 752,0:END
6010 RETURN
```

```
10 REM MONSTERZAP IMPROVED
20 REM COPYRIGHT FRED HARRIS
25 REM ATARI VERSION: MIKE MOORE
30 REM*****************************
40 REM INITIALISE
50 GOSUB 1000
60 REM*****************************
70 REM INSTRUCTIONS
180 GOSUB 2000
100 REM*****************************
100 REM DRAW SCENE
110 GOSUB 3000
120 REM*****************************
150 REM MAIN MOVEMENT LOOP
160 FOR C=-37 TO 37
170 POSITION ABS(C),2:PRINT "(CTRL)A(CTRL)D"
180 FOR T=1 TO 15: NEXT T
185 KEY=PEEK(64401+PEEK(764))
186 POKE 764,1
190 IF KEY=ASC("F") THEN GOSUB 5000
200 POSITION ABS(C),2:PRINT ". "
210 NEXT C
220 GOTO 160:REM REPEAT MAIN LOOP
230 REM*****************************
240 END
250 REM*****************************
260 REM SUBROUTINES
270 REM*****************************
990 REM INITIALISATION
1000 PRINT "(ESC)(CTRL)(CLEAR)":POKE 752,1
1020 F=0
1050 R=3
1080 RETURN
1090 REM*****************************
1990 REM INSTRUCTIONS
2000 POSITION 14,2:PRINT "MONSTERZAP"
2010 POSITION 11,4:PRINT "PRESS F TO FIRE"
2015 POSITION 12,6:PRINT "ONLY 40 SHOTS"
2020 POSITION 2,20:PRINT "PRESS ANY KEY WHEN YOU ARE READY"
2030 OPEN #1,4,0,"K:"
2040 GET #1,KEY
2050 CLOSE #1
2055 PRINT "(ESC)(CTRL)(CLEAR)"
2060 RETURN
2070 REM*****************************
2990 REM DRAW SCENE
3000 REM
3010 REM MONSTERS
3020 FOR N=0 TO 4
3030 POSITION N*7+3,11:PRINT "\ /"
3040 POSITION N*7+3,12:PRINT "O(RVS)!(RVS)O"
3050 POSITION N*7+3,13:PRINT "(RVS)!(RVS)(SPACE)(RVS)!(RVS)"
3060 NEXT N
3070 REM
3080 REM SKYSCRAPERS
3090 FOR N=0 TO 5
3100 FOR M=10 TO 13
3110 POSITION M*7,N:PRINT "(RVS)(CTRL)I(CTRL)I(RVS)(CTRL)Y"
3120 NEXT M
3130 NEXT N
3135 POSITION 0,18:PRINT "0    SHOTS USED"
3140 RETURN
3150 REM*****************************
```

```
+----------------------+
l Lines 3030-3050 and l
l line 3110 involve a  l
l certain amount of    l
l maths to position thel
l characters in the    l
l correct places.      l
l There are 7 characterl
l positions for each   l
l group of monsters andl
l skyscrapers. Thus,   l
l N*7 is used to give   l
l that place. The +3   l
l leaves room for the  l
l skyscrapers as the   l
l monsters are being   l
l printed.             l
+----------------------+
```

```
4990 REM ZAP
5000 FOR N=10 TO 13
5010 SOUND 1,100,10,10
5020 POSITION ABS(C),N:PRINT "*"
5030 POSITION ABS(C),N:PRINT "X"
5040 POSITION ABS(C),N:PRINT " "
5050 SOUND 1,0,0,0
5060 NEXT N
5065 POSITION ABS(C),13:PRINT "(CTRL)N"
5070 F=F+1
5075 POSITION 0,18:PRINT F
5080 IF F=40 THEN POKE 752,0:END
5090 RETURN
```

The Atari computer requires prior notification of the use of strings. This is done by DIMensioning the string before it will be used. Thus the statement DIM KEY$(1) sets up space in the memory for one character to be stored under the name of KEY$. Substrings can be obtained using the following rules and assuming that the following commands have been carried out:-

DIM A$(20):A$="ABCDEFGHIJKLMNOPQRST"

1: To obtain the characters of a string to the right of a specific point it is merely necessary to use the instruction A$(n) where n is a number equal to or less than the length of A$. It is important to note that the character at position n within the string will be included in the substring.

2: To obtain a substring from the middle of a string use the instruction A$(n1,n2). Thus the substring A$(4,10)="DEFGHIJ". Obtaining a single character is similar in that start and end points are required, however for a single character these points will be the same, so A$(7,7)="G".

```
10 REM ANAGRAMS 100
20 REM COPYRIGHT FRED HARRIS
25 REM ATARI VERSION: MIKE MOORE
26 REM *****************************
30 DIM A$(20),C$(20),J$(20)
40 INPUT A$
50 C$ = A$
60 REM *****************************
70 FOR M = 1 TO 100
80 GOSUB 2000 : REM SHUFFLE
100 PRINT J$
110 A$ = C$
120 NEXT M
130 REM *****************************
140 END
150 REM *****************************
1980 REM *****SHUFFLE SUBROUTINE*****
2000 J$ = "":REM NULL STRING
2010 FOR K = 1 TO LEN(C$)-1
2020 L = LEN(A$)
2030 N = INT(RND(9)*L)+1
2040 J$(K,K)=A$(N,N)
2045 D=0
2049 REM ***REMOVE THE CHOSEN CHARACTER***
2050 FOR X=1 TO LEN(A$):IF X=N THEN NEXT X: GOTO 2055
2051 D=D+1: A$(D,D)=A$(X,X):NEXT X
2055 IF LEN(A$)>1 THEN A$=A$(1,LEN(A$)-1)
2056 IF LEN(A$)=1 THEN J$(20,20)=A$:A$=""
2060 NEXT K
2070 RETURN
```

```
10 REM QUACMAN
20 REM COPYRIGHT FRED HARRIS
25 REM ATARI VERSION: MIKE MOORE
30 REM ****************************
40 REM INITIALISE AND DRAW MAZE
50 GOSUB 1000
60 REM ****************************
70 REM MAKE FIRST HOLE
80 GOSUB 2000
90 REM ****************************
100 REM REPEAT UNTIL QUACKMAN THROUGH MAZE
120 REM MOVE QUACMAN
130 GOSUB 3000
140 IF C<36 THEN 130
155 POSITION 36,R:PRINT "Q"
160 POSITION 0,22:PRINT "TIME TAKEN ";TIME
170 REM ****************************
180 END
190 REM ****************END**********
200 REM **********END**********
220 REM ******SUBROUTINES*******
990 REM INITIALISATION
1000 TIME = 0
1003 DIM KEY$(1)
1005 PRINT "(ESC)(CTRL)(CLEAR)"
1010 R = 0
1020 C = 1
1025 POKE 752,1
1030 FOR N=0 TO 19
1040 POSITION 0,N:PRINT " I I I I I I I I I I I I I I I I I I I"
1050 NEXT N
1060 RETURN
1070 REM ****************************
1990 REM MAKE A HOLE
2000 IF C>36 THEN RETURN
2010 H = INT(RND(9)*18)+1
2020 POSITION C+1,H: PRINT " "
2030 RETURN
2040 REM ****************************
2990 REM MOVE
3000 POSITION C,R: PRINT "Q"
3010 SOUND 0,115,10,8
3015 TIME = TIME+1
3020 FOR T=1 TO 10:NEXT T:SOUND 0,0,0,0
3030 POSITION C,R: PRINT " "
3035 KEY$=CHR$(PEEK(64401+PEEK(764)))
3036 POKE 764,32
3040 IF KEY$="Z" AND R=H THEN C=C+2:GOSUB 2000
3050 IF KEY$="/" THEN R=R-1
3060 IF KEY$="?" THEN R=R+1
3070 IF R<0 THEN R=0
3080 IF R>19 THEN R=19
3090 RETURN
```

```
10 REM MATCHEM
20 COPYRIGHT FRED HARRIS
25 REM ATARI VERSION: MIKE MOORE
30 REM ****************************
45 REN INITIALISE
50 GOSUB 1000
60 REM ****************************
105 REM CHOOSE FIRST CARD
110 GOSUB 2000
120 FG=I: N1=N: M1=M
122 REM ****************************
124 REM SHOW CARD
125 GOSUB 3000
130 REM ****************************
140 GOSUB 2000
150 IF FG=I THEN 140
152 REM ****************************
154 REM SHOW CARD
155 GOSUB 3000
170 GUESS = GUESS +1
182 FOR T=1 TO DELAY: NEXT T
183 REM ****************************
185 REM CHECK FOR MATCH
190 GOSUB 4000
200 IF MATCH=1 THEN GOSUB 5000
205 REM IF CARDS DO NOT MATCH
210 IF MATCH=0 THEN GOSUB 6000
230 POSITION 14,19: PRINT "TRIES ";GUESS
240 POSITION 14,20: PRINT "SCORE ";SCORE
250 IF SCORE < 10 THEN 110
260 REM ****************************
270 POKE 752,0:END
275 REM**********END**********
278 REM*******SUBROUTINES*******
990 REM INITIALISE
1000 PRINT "(ESC)(CTRL)(CLEAR)"
1004 DIM X$(2): DIM Y$(2): DIM C$(1)
1006 POKE 752,1
1010 GUESS = 0
1020 SCORE = 0
1030 DIM A$(20)
1035 A$="AABBCCDDEEFFGGHHIIJJ"
1036 DELAY = 2500
1037 DIM J$(20)
1038 LET J$=""
1040 REM
1050 REM SHUFFLE
1055 FOR K = 1 TO 19
1060 L=LEN(A$)
1080 N=INT(RND(9)*L)+1
1090 J$(K,K)=A$(N,N)
1095 D=0
1100 FOR X=1 TO LEN(A$): IF X=N THEN NEXT X: GOTO 1102
1101 LET D=D+1: LET A$(D,D)=A$(X,X):NEXT X
1102 IF LEN(A$)>1 THEN A$=A$(1,LEN(A$)-1)
1103 IF LEN(A$)=1 THEN J$(K+1,K+1)=A$:LET A$=""
1105 NEXT K
1110 REM
1120 REM DISPLAY BACKS
1130 FOR N=0 TO 4
1140 FOR M=0 TO 3
1150 POSITION 3*N+5,3*M: PRINT N+5*M+1
1160 NEXT M
1170 NEXT N
1180 RETURN
1185 REM ****************************
```

```
+-----------------------------+
l These lines work as         l
l follows:-   3*N will give    l
l 3 spaces per card, the       l
l +5 moves the cards over      l
l to a central position.       l
l N+5*M+1 will give the        l
l numbers for the backs of     l
l the cards from 1 to 20.      l
+-----------------------------+
```

```
1990 REM CHOOSE A CARD
2000 REM
2007 POSITION 0,18:PRINT "                    ":REM 20 SPACES
2008 POSITION 0,18
2010 INPUT I
2015 LET I=INT(I)
2020 IF I<1 OR I>20 THEN 2007
2022 C$=J$(I,I): REM FIND CHOSEN CARD
2023 IF C$="-" THEN 2007
2025 POSITION 0,18:PRINT "                    ":REM 20 SPACES
2040 M=INT((I-1)/5)
2050 N=I-5*M-I
2070 RETURN
2080 REM *******************************
2990 REM SHOW CARD
3000 IF C$="A" THEN X$="++": Y$="++"
3010 IF C$="B" THEN X$="/\": Y$="\/"
3020 IF C$="C" THEN X$="()": Y$="()"
3030 IF C$="D" THEN X$="II": Y$="II"
3040 IF C$="E" THEN X$="@@": Y$="@@"
3050 IF C$="F" THEN X$="XX": Y$="XX"
3060 IF C$="G" THEN X$="**": Y$="**"
3070 IF C$="H" THEN X$=")(": Y$=")("
3080 IF C$="I" THEN X$="==": Y$="=="
3090 IF C$="J" THEN X$="00": Y$="00"
3095 POSITION 3*N+5,3*M:PRINT X$
3100 POSITION 3*N+5,3*M+1:PRINT Y$
3110 RETURN
3120 REM *******************************
3990 REM CHECK FOR MATCH
4000 MATCH = 0
4010 IF J$(FG,FG)=J$(I,I) THEN MATCH=1
4020 RETURN
4030 REM *******************************
4990 REM IF CARDS DO MATCH
5000 J$(FG,FG)="-"
5010 J$(I,I)="-"
5020 SCORE = SCORE +1
5025 FOR A=25 TO 10 STEP -1
5030 SOUND 1,A,10,8
5040 FOR B=1 TO 50:NEXT B
5050 NEXT A:SOUND 1,0,0,0
5060 RETURN
5070 REM *******************************
5990 REM IF CARDS DO NOT MATCH
6000 SOUND 1,100,10,10
6010 FOR Z=1 TO 100:NEXT Z
6020 SOUND 1,0,0,0
6040 POSITION 3*N1+5,3*M1:PRINT FG;" "
6050 POSITION 3*N1+5,3*M1+1:PRINT "  ":REM 2 SPACES
6060 POSITION 3*N+5,3*M:PRINT I;" "
6070 POSITION 3*N+5,3*M+1:PRINT "  ":REM 2 SPACES
6080 RETURN
```

COMMODORE 64 AND VIC 20 SECTION

All the programs in this section with the exception of MONSTERZAP IMPROVED will work on both machines. Commodore 64 users will find appropriate line changes listed before the start of each program. The only difference between the programs lies in the screen width and page length of the two machines.

Frequently used within the program listings are PEEK and POKE. These commands relate directly to the memory locations of the computer. The use of these instructions have been kept to a minimum wherever possible. You will find that they are only used for screen and sound locations. For a fuller explanation of their use please refer to the Commodore Reference Guide (I had to!).

If you see any characters that are used in a print statement enclosed by brackets, i.e. PRINT "(HOME)", you should press the appropriate function key on your computer.

```
(HOME)  is the key on the top right labelled CLR HOME.
(CLR)   is the same key as above but used with the shift key.
(CD)    is the cursor down key on the bottom right.
(CR)    is the cursor right next to the cursor left.  Both of these
two cursor keys should be used without pressing shift.
```

Any numbers contained within the brackets indicates the number of times that the function key should be pressed.

MONSTERZAP CORE LISTING

Commodore 64 variations.

```
160 FOR C=1 TO 41
170 LET S$ = RIGHT$(S$,1)+LEFT$(S$,40)
175 PRINT "(HOME)(CD)(CD)";S$
177 IF C=41 THEN NEXT C
1000 LET S$="*(40 SPACES)"
1010 LET E$="(41 SPACES)"
3000 LET A$=" HH       HH       HH       HH       HH       HH":REM 5 SPACES
3010 LET B$=" HH \ / HH \ / HH \ / HH \ / HH \ / HH"
3020 LET C$=" HH O*O HH O*O HH O*O HH O*O HH O*O HH"
3030 LET D$=" HH < > HH < > HH < > HH < > HH < > HH"
5010 LET A$=LEFT$(A$,C)+" "+RIGHT$(A$,39-C)
5020 LET B$=LEFT$(B$,C)+" "+RIGHT$(B$,39-C)
5030 LET C$=LEFT$(C$,C)+" "+RIGHT$(C$,39-C)
5040 LET D$=LEFT$(D$,C)+" "+RIGHT$(D$,39-C)
6000 IF F=40 THEN END

10 REM MONSTERZAP
12 REM CORE LISTING
20 REM COPYRIGHT FRED HARRIS
25 REM COMMODORE VERSION: MIKE MOORE
30 REM*******************************
40 REM INITIALISE
50 REM GOSUB 1000
60 REM*******************************
100 REM DRAW SCENE
110 GOSUB 3000
120 REM*******************************
150 REM MAIN MOVEMENT LOOP
160 FOR C = 1 TO 23
170 LET S$ = RIGHT$(S$,1)+LEFT$(S$,22)
175 PRINT "(HOME)(CD)(CD)";S$
177 IF C=23 THEN NEXT C
```

```
180 FOR T=1 TO DELAY : NEXT T
190 GET KEY$
200 IF KEY$="F" THEN GOSUB 5000
210 PRINT "(HOME)";E$
220 NEXT C
230 GOTO 160: REM REPEAT MAIN LOOP
235 REM**********************************
240 END
250 REM**********************************
990 REM INITIALISATION
1000 LET S$="*                        ":REM (* THEN 22 SPACES)
1010 LET E$="                        ":REM(23 SPACES)
1020 LET DELAY = 25
1030 PRINT "(CLR)"
1080 RETURN
1090 REM**********************************
2990 REM DRAW SCENE
3000 LET A$=" H      °HH     HH      H"
3010 LET B$=" H \ / HH \ / HH \ / H"
3020 LET C$=" H O*O HH O*O HH O*O H"
3030 LET D$=" H < > HH < > HH < > H"
3405 PRINT "(HOME)(10 CD)" : PRINT A$;:PRINT B$;:PRINT C$;:PRINT D$;
3410 PRINT "(HOME)(18 CD)O    SHOTS USED"
3420 RETURN
3430 REM**********************************
4990 REM ZAP
5000 PRINT "(HOME)(10 CD)";
5010 LET A$=LEFT$(A$,C)+" "+RIGHT$(A$,21-C)
5020 LET B$=LEFT$(B$,C)+" "+RIGHT$(B$,21-C)
5030 LET C$=LEFT$(C$,C)+" "+RIGHT$(C$,21-C)
5040 LET D$=LEFT$(D$,C)+" "+RIGHT$(D$,21-C)
5050 PRINT A$;:PRINT B$;:PRINT C$;:PRINT D$;
5080 LET F=F+1
5090 PRINT "(HOME)(18 CD)";F
6000 IF F=20 THEN END
6010 RETURN


MONSTERZAP IMPROVED for the Commodore 64 only.


10 REM MONSTERZAP IMPROVED
12 REM VERSION 2
20 REM COPYRIGHT FRED HARRIS
25 REM CBM64 VERSION: MIKE MOORE
30 REM**********************************
40 REM INITIALISE
50 GOTO 1000
60 REM**********************************
70 REM INSTRUCTIONS
80 GOSUB 2000
90 REM**********************************
100 REM DRAW SCENE
110 GOSUB 3000
120 REM**********************************
150 REM MAIN MOVEMENT LOOP
160 FOR C=-40 TO 40
165 IF C=0 THEN NEXT C
170 IF C<0 THEN LET S$=RIGHT$(S$,1)+LEFT$(S$,39)
175 IF C>0 THEN LET S$=LEFT$(S$,1)+RIGHT$(S$,39)
177 PRINT "(HOME)(CD)(CD)";S$
180 FOR T=1 TO DE:NEXT T
185 GET KEY$
190 IF KEY$="F" THEN GOSUB 5000
200 PRINT "(HOME)(CD)(CD)";E$
210 NEXT C
220 GOTO 160: REM REPEAT MAIN LOOP
```

```
230 REM**********************************
240 END
250 REM**********************************
990 REM INITIALISE
1000 GOTO 9000
1010 LET S$=CHR$(94)+"(39 SPACES)"
1015 PRINT "(CLR)"
1020 LET E$="(40 SPACES)"
1030 LET F=0
1040 LET Y$="(25 CD)": REM 25 CURSOR DOWNS
1050 LET X$="(40 CR)": REM 40 CURSOR RIGHTS
1080 GOTO 80
1090 REM**********************************
1990 REM INSTRUCTIONS
2000 PRINT "(HOME)";LEFT$(X$,15);LEFT$(Y$,3);"MONSTER ZAP"
2010 PRINT "(HOME)";LEFT$(X$,12);LEFT$(Y$,5);"PRESS F TO FIRE"
2015 PRINT "(HOME)";LEFT$(X$,13);LEFT$(Y$,7);"ONLY 40 SHOTS"
2020 PRINT "(HOME)";LEFT$(X$,4);LEFT$(Y$,25);"PRESS ANY KEY WHEN YOU
ARE READY"
2030 GET D$: IF D$="" THEN 2030
2040 PRINT "(HOME)"
2070 RETURN
2090 REM**********************************
2990 REM DRAW SCENE
3000 REM SET FOREGROUND COLOUR TO WHITE
3010 FOR A=55296 TO 56295
3020 POKE A,1
3030 NEXT A
3032 REM
3035 REM DRAW SKY BLUE
3040 FOR A=1024 TO 1024+14*40
3050 POKE A,ASC(" ")
3060 NEXT A
3062 REM
3065 REM DRAW GROUND GREEN
3070 FOR A=1024+14*40 TO 2023
3080 POKE A,ASC(" ")+64
3090 NEXT A
3095 REM MONSTERS
3100 FOR N=0 TO 4
3110 PRINT "(HOME)";LEFT$(X$,7*N+3);LEFT$(Y$,11);" ( ) "
3120 PRINT "(HOME)";LEFT$(X$,7*N+3);LEFT$(Y$,12);" O";CHR$(64);"O"
3130 PRINT "(HOME)";LEFT$(X$,7*N+3);LEFT$(Y$,13);
3135 PRINT " ";CHR$(63);" ";CHR$(64);" "
3140 NEXT A
3410 PRINT "(HOME)";LEFT$(Y$,18);"O    SHOTS USED"
3415 REM
3420 REM SKYSCRAPERS
3430 FOR N=0 TO 5
3440 FOR L=10 TO 13
3450 PRINT "(HOME)";LEFT$(X$,7*N);LEFT$(Y$,L);CHR$(95);CHR$(95)
3460 NEXT L
3470 NEXT N
3480 RETURN
3490 REM**********************************
4990 REM FIRE
5000 FOR L=10 TO 13
5010 POKE 54273,21:POKE 54272,63:POKE 54296,15:POKE 54276,33
5020 PRINT "(HOME)";LEFT$(X$,ABS(C));LEFT$(Y$,L);"*"
5030 PRINT "(HOME)";LEFT$(X$,ABS(C));LEFT$(Y$,L);"X"
5040 PRINT "(HOME)";LEFT$(X$,ABS(C));LEFT$(Y$,L);" "
5045 POKE 54276,0
5050 NEXT L
```

```
+----------------------+
l Lines 3110-3130 and  l
l line 3150 involve an  l
l amount of maths to getl
l the correct character l
l position,  There are  l
l 7 positons for each   l
l character group.  Thusl
l N*7 is used to give   l
l that place.  The +3    l
l leaves room for the   l
l skyscrapers, as the   l
l monsters are printed. l
+----------------------+
```

```
5060 PRINT "(HOME)";LEFT$(X$,ABS(C));LEFT$(Y$,14);CHR$(92)
5080 LET F=F+1
5090 PRINT "(HOME)";LEFT$(Y$,18);F
5100 IF F=40 THEN END
5110 RETURN
5120 REM****************************
8990 REM COPY ROM CHARACTER SET TO RAM
9000 PRINT CHR$(142)
9010 POKE 52,48
9020 POKE 56,48
9030 CLR
9040 POKE 56334,PEEK(56334) AND 254
9050 POKE 1,PEEK(1) AND 251
9060 FOR I=0 TO 511
9070 POKE I+12288,PEEK(I+53248)
9080 NEXT I
9090 POKE 1,PEEK(1) OR 4
9100 POKE 56334,PEEK(56334) OR 1
9110 POKE 53272,(PEEK(53272) AND 240)+12
9112 REM****************************
9115 REM CHANGE RAM CHARACTER SET TO USER DEFINED GRAPHICS
9120 FOR A=0 TO 7
9130 READ B:POKE A+12288,B
9140 NEXT A
9150 DATA 255,231,231,231,255,231,255,255
9155 REM
9160 FOR A=248 TO 255
9170 READ B:POKE A+12288,B
9180 NEXT A
9190 DATA 129,219,165,153,153,165,219,219
9195 REM
9200 FOR A=240 TO 247
9210 READ B:POKE A+12288,B
9220 NEXT A
9230 DATA 36,0,36,255,0,0,0,0
9235 REM
9240 FOR A=224 TO 231
9250 READ B:POKE A+12288,B
9260 NEXT A
9270 DATA 0,0,0,0,0,133,137,255
9275 REM****************************
9280 POKE 53265,PEEK(53265) OR 64
9290 POKE 53281,6
9300 POKE 53282,5
9305 POKE 53283,5:POKE 53284,5
9310 GOTO 1010
```

```
+------------------------+
l User defined graphics arel
l not available on the 64  l
l but it is possible to    l
l redefine the normal ROM  l
l character set.  In the   l
l computer a location is   l
l used to point to the     l
l stored characters, it is l
l possible to change this  l
l location to point else-  l
l where.  So, a set can be l
l defined in RAM and used. l
+------------------------+
l Characters are stored  l
l in memory as a block ofl
l 8 by 8 pixels.  This isl
l because 8 bytes of 8   l
l bits each are used.    l
l Binary is used to find l
l out which value goes inl
l each byte.  Thus,      l
l                        l
l BINARY      DECIMAL    l
l 00000000       0       l
l 00011000      24       l
l 00100100      36       l
l 00111100      60       l
l 00111100      60       l
l 00100100      36       l
l 00100100      36       l
l 00000000       0       l
l will give you an 'A'.  l
l                        l
l Decimal is used in the l
l POKE instruction.  For l
l a more detailed look atl
l this see the MANUAL.   l
+------------------------+
```

QUACMAN LISTING

Commodore 64 variations.

```
140 IF C<36 THEN GOTO 130
155 PRINT "(HOME)";LEFT$(X$,38);LEFT$(Y$,R);"Q"
1040 PRINT " I I I I I I I I I I I I I I I I I I I I"
1060 LET X$="(40 CR)"
3010 POKE 54273,23:POKE 54272,63:POKE 54296,15:POKE 54276,33
3020 FOR T=1 TO 25: NEXT T: POKE 54276,0

10 REM QUACMAN
20 REM COPYRIGHT FRED HARRIS
25 REM COMMODORE VERSION: MIKE MOORE
30 REM****************************
40 REM INITIALISE
50 GOSUB 1000
60 REM****************************
70 REM MAKE FIRST HOLE
80 GOSUB 2000
90 REM****************************
100 REM REPEAT UNTIL QUACMAN THROUGH MAZE
120 REM MOVE QUACMAN
130 GOSUB 3000
140 IF C<20 THEN GOTO 130
155 PRINT "(HOME)";LEFT$(X$,21);LEFT$(Y$,R);"Q"
160 PRINT "(HOME)";LEFT$(Y$,20);"TIME TAKEN=";VAL(TI$)
170 REM****************************
180 END
190 REM****************************
200 REM************END************
220 REM*********SUBROUTINES*********
990 REM INITIALISATION
1000 LET TI$="000000"
1005 PRINT "(CLR)";
1010 LET R=1
1020 LET C=0
1030 FOR N=1 TO 20
1040 PRINT " I I I I I I I I I I I"
1050 NEXT N
1060 LET X$="(22 CR)"
1070 LET Y$="(23 CD)"
1080 RETURN
1090 REM****************************
1990 REM MAKE A HOLE
2000 REM
2010 LET H=INT(RND(8)*16)+2
2020 PRINT "(HOME)";LEFT$(X$,C+1);LEFT$(Y$,H);
2025 PRINT "(CTRL)(RED)(SPACE)(CTRL)(CYN)"
2030 RETURN
2040 REM****************************
2990 REM MOVE
3000 PRINT "(HOME)";LEFT$(X$,C);LEFT$(Y$,R);"Q"
3010 POKE 36876,172:POKE 36878,8
3020 FOR T=1 TO 10: NEXT T: POKE 36878,0
3030 PRINT "(HOME)";LEFT$(X$,C);LEFT$(Y$,R);" "
3035 GET KEY$
3040 IF KEY$="Z" AND R=H THEN LET C=C+2: GOSUB 2000
3050 IF KEY$=";" THEN LET R=R-1
3060 IF KEY$="/" THEN LET R=R+1
3070 IF R<0 THEN LET R=0
3080 IF R>19 THEN LET R=19
3090 RETURN
```

MATCHEM LISTING

Commodore 64 variations

```
5030 POKE 54272,63:POKE 54296,15:POKE 54276,33
5035 FOR A=20 TO 30:POKE 54273,A:FOR B=1 TO 100:NEXT B:NEXT A
5040 POKE 54276,0
6000 POKE 54272,63:POKE 54296,15:POKE 54276,33:POKE 54273,20
6010 FOR T = 1 TO 500 : NEXT T:POKE 54276,0

10 REM MATCHEM
20 REM COPYRIGHT FRED HARRIS
25 REM COMMODORE VERSION: MIKE MOORE
30 REM******************************
45 REM INITIALISE
50 GOSUB 1000
60 REM******************************
105 REM CHOOSE FIRST CARD
110 GOSUB 2000
120 LET FG=I:LET N1=N: LET M1=M
122 REM******************************
124 REM SHOW CARD
125 GOSUB 3000
130 REM******************************
135 REM CHOOSE SECOND CARD
140 GOSUB 2000
150 IF I=FG THEN GOTO 140
152 REM******************************
154 REM SHOW CARD
155 GOSUB 3000
170 LET GUESS = GUESS+1
182 FOR T=1 TO DELAY:NEXT T
183 REM******************************
185 REM CHECK FOR MATCH
190 GOSUB 4000
200 IF MATCH=1 THEN GOSUB 5000
205 REM IF CARDS DO NOT MATCH
210 IF MATCH=0 THEN GOSUB 6000
230 PRINT "(HOME)";LEFT$(Y$,18);"TRIES:";GUESS;
240 PRINT " SCORE:";SCRE
250 IF SCRE <> 10 THEN 100
260 REM******************************
270 END
275 REM ******END******
278 REM **SUBROUTINES**
990 REM INITIALISATION
1000 REM
1006 PRINT "(CLR)"
1010 LET GUESS =0
1015 LET SCRE =0
1020 LET A$="AABBCCDDEEFFGGHHIIJJ"
1030 LET J$=""
1035 LET DELAY = 2500
1040 REM******************************
1050 REM SHUFFLE
1055 FOR K=1 TO 20
1060 LET L = LEN(A$)
1080 LET N=INT(RND(8)*L)+1
1090 LET J$=J$+MID$(A$,N,1)
1100 LET A$=LEFT$(A$,N-1)+RIGHT$(A$,L-N)
1105 NEXT K
1106 LET X$="(22 CR)"
1107 LET Y$="(23 CD)"
1110 REM******************************
```

```
1120 REM DISPLAY BACKS
1130 FOR N = 0 TO 4
1140 FOR M = 0 TO 3
1150 PRINT "(HOME)";LEFT$(X$,3*N+5);LEFT$(Y$,3*M);N+5*M+1
1160 NEXT M
1170 NEXT N
1180 RETURN
1190 REM******************************
1990 REM CHOOSE A CARD
2000 PRINT "(HOME)";LEFT$(Y$,15);"          "
2005 PRINT "(HOME)";LEFT$(Y$,15);
2010 INPUT I
2015 LET I=INT(I)
2020 IF I<1 OR I>20 THEN 2000
2022 LET C$=MID$(J$,I,1):REM FIND CARD
2023 IF C$="-" THEN 2000
2025 PRINT "(HOME)";LEFT$(Y$,15);"          "
2040 LET M=INT((I-1)/5)
2050 LET N=I-5*M-1
2070 RETURN
2080 REM******************************
2990 REM SHOW CARD
3000 IF C$="A" THEN LET P$=" ++":LET Q$=" ++"
3010 IF C$="B" THEN LET P$=" /\":LET Q$=" \/"
3020 IF C$="C" THEN LET P$=" ()":LET Q$=" ()"
3030 IF C$="D" THEN LET P$=" II":LET Q$=" II"
3040 IF C$="E" THEN LET P$=" @@":LET Q$=" @@"
3050 IF C$="F" THEN LET:P$=" XX":LET Q$=" XX"
3060 IF C$="G" THEN LET:P$=" **":LET Q$=" **"
3070 IF C$="H" THEN LET:P$=" )(":LET Q$=" )("
3080 IF C$="I" THEN LET P$=" ==":LET Q$=" =="
3090 IF C$="J" THEN LET P$=" 00":LET Q$=" 00"
3095 PRINT "(HOME)";LEFT$(X$,3*N+5);LEFT$(Y$,3*M);P$
3100 PRINT "(HOME)";LEFT$(X$,3*N+5);LEFT$(Y$,3*M+1);Q$
3110 RETURN
3120 REM******************************
3990 REM CHECK FOR MATCH
4000 LET MATCH = 0
4010 IF MID$(J$,FG,1)=MID$(J$,I,1) THEN MATCH = 1
4020 RETURN
4030 REM******************************
4990 REM IF CARDS DO MATCH
5000 LET J$=LEFT$(J$,FG-1)+"-"+RIGHT$(J$,LEN(J$)-FG)
5010 LET J$=LEFT$(J$,I-1)+"-"+RIGHT$(J$,LEN(J$)-1)
5020 LET SCRE = SCRE+1
5030 FOR A=200 TO 250:POKE 36878,8:POKE 36875,A
5040 FOR B=1 TO 50:NEXT B:NEXT A:POKE 36878,0
5060 RETURN
5070 REM******************************
5990 REM IF CARDS DO NOT MATCH
6000 POKE 36874,172:POKE 36878,8
6010 FOR T = 1 TO 500 : NEXT T:POKE 36878,0
6040 PRINT "(HOME)";LEFT$(X$,3*N1+5);LEFT$(Y$,3*M1);STR$(FG);" "
6050 PRINT "(HOME)";LEFT$(X$,3*N1+5);LEFT$(Y$,3*M1+1);"   "
6060 PRINT "(HOME)";LEFT$(X$,3*N+5);LEFT$(Y$,3*M);STR$(I);" "
6070 PRINT "(HOME)";LEFT$(X$,3*N+5);LEFT$(Y$,3*M+1);"   "
6080 RETURN
```

```
+------------------+
l Error Trapping   l
l                  l
lLines 150,2015-2023l
l are used to ensure l
l that the input you l
l give falls within l
l the predetermined l
l range.  If these  l
l were not included l
l then you might ask l
l the computer to   l
l perform something l
l which it has not  l
l been programmed   l
l to do.            l
+------------------+
```

TANDY AND DRAGON SECTION

```
10 REM MONSTERZAP
12 REM CORE PROGRAM
20 REM COPYRIGHT FRED HARRIS
25 REM TANDY/DRAGON VERSION: MIKE MOORE
30 REM*****************************
40 REM INITIALISE
50 GOSUB 1000
60 REM*****************************
100 REM DRAW SCENE
110 GOSUB 3000
120 REM*****************************
150 REM MAIN LOOP MOVEMENT
160 LET C = 0 TO 31
170 PRINT@(C+R*32),"*"
180 FOR T = 1 TO DE:NEXT T
185 LET KEY$=INKEY$
190 IF KEY$="F" THEN GOSUB 5000
200 PRINT@(C+32*R)," "
210 NEXT C
220 GOTO 160:REM REPEAT MAIN LOOP
230 REM*****************************
240 END
250 REM*****************************
990 REM INITIALISE
1000 LET R=2
1005 CLS
1010 LET F=0
1020 LET DE=25
1080 RETURN
1090 REM*****************************
2990 REM DRAW SCENE
3000 PRINT@288,"HH    HH    HH    HH    HH"
3010 PRINT@320,"HH ( ) HH ( ) HH ( ) HH ( ) HH"
3020 PRINT@352,"HH O*O HH O*O HH O*O HH O*O HH"
3030 PRINT@384,"HH < > HH < > HH < > HH < > HH"
3410 PRINT@448,"O    SHOTS USED"
3420 RETURN
3430 REM*****************************
4990 REM ZAP
5000 FOR I=228 TO 384 STEP 32
5040 PRINT@(I+C)," ";
5050 NEXT I
5080 LET F=F+1
5090 PRINT@448,F;
6000 IF F=40 THEN END
6010 RETURN
```

The TRS-80 and DRAGON computers have some good graphics and colour
capabilities. Unfortunately though, it is not possible to combine
graphics and text. This will be more noticeable in the MONSTERZAP
IMPROVED game than it would in others since the number of shots that
you have used cannot be displayed.

The program may well seem complicated but it is quite straightforward
if you look at it logically. The command DRAW plots various points
on to the screen. GET places an image of that picture into an array
which has been dimensioned to a suitable size. PUT places that image
on the screen at the specified location. You are referred to your
machines manual and dealer for further information if required.

```
10 REM MONSTERZAP IMPROVED          +----------------------------+
12 REM VERSION 2                    l Lines 3080-3105 illustratel
20 REM COPYRIGHT FRED HARRIS        l some of the maths involvedl
25 REM TANDY/DRAGON VERSION: MIKE MOORE l to position the charactersl
30 REM*****************************  l in the correct places.     l
40 REM INSTRUCTIONS                 l There are 7 character      l
50 GOSUB 1000                       l positions for a group of   l
60 REM*****************************  l monsters and skyscrapers.  l
70 REM INITIALISE                   l Thus, N*7 is used to give   l
80 GOTO 2000                        l the correct postion.  *8   l
90 REM*****************************  l is used because the width  l
100 REM DRAW SCENE                  l of the characters is 8.    l
110 GOSUB 3000                      l The +number leaves room    l
120 REM*****************************  l for the skyscrapers as thel
150 REM MAIN MOVEMENT LOOP          l monsters are being printedl
160 FOR C=-31 TO 31                 +----------------------------+
170 DRAW "BM"+STR$(ABS(C)*8)+",16;D7;E3;R1;F3;U7;G3;L1;H3"
180 FOR T=1 TO 15:NEXT T
185 LET KEY$=INKEY$
190 IF KEY$="F" THEN GOSUB 5000
200 PUT(ABS(C)*8,16)-(ABS(C)*8+7,23),B,PSET
210 NEXT C
220 GOTO 160:REM MAIN LOOP
230 REM*****************************
240 END
250 REM*****************************
260 REM SUBROUTINES
270 REM*****************************
990 REM INSTRUCTIONS
1000 CLS
1005 PRINT@40,"MONSTERZAP"
1010 PRINT@110,"PRESS F TO FIRE"
1020 PRINT@177,"ONLY 30 SHOTS"
1030 PRINT@448,"PRESS ANY KEY WHEN YOU ARE READY"
1040 IF INKEY$="" THEN 1040
1050 CLS
1060 RETURN
1070 REM*****************************
1990 REM INITIALISATION
2000 PCLEAR 4
2010 PMODE 3
2020 SCREEN 1,0
2030 COLOR 2,3
2040 PCLS
2050 F=0
2060 GOSUB 9000
2070 GOTO 90
2080 REM*****************************
2990 REM DRAW SCENE
3000 REM GROUND
3010 FOR A=13 TO 23
3020 FOR B=0 TO 31
3030 PUT(B*8,A*8)-(B*8+7,A*8+7),C,PSET
3040 NEXT B
3050 NEXT A
3060 REM MONSTERS
3070 FOR N=0 TO 3
3080 PUT(N*8*7+24,80)-(N*8*7+31,87),D,PSET
3085 PUT(N*8*7+40,80)-(N*8*7+47,87),E,PSET
3090 PUT(N*8*7+24,88)-(N*8*7+31,95),G,PSET
3095 PUT(N*8*7+40,88)-(N*8*7+47,95),G,PSET
3100 PUT(N*8*7+24,96)-(N*8*7+31,103),F,PSET
3105 PUT(N*8*7+40,96)-(N*8*7+47,103),F,PSET
3110 NEXT N
```

```
3120 REM SKYSCRAPERS
3130 FOR N=0 TO 4
3140 FOR M=9 TO 12
3150 DRAW "BM"+STR$(N*8*7)+","+STR$(M*8)+";C2;R16;D8;L16;U8;R8;D8"
3160 NEXT M
3170 NEXT N
3180 RETURN
3190 REM***************************
4990 REM ZAP
5000 FOR A=9 TO 12
5010 PLAY "L200A"
5020 PUT(ABS(C)*8,A*8)-(ABS(C)*8+7,A*8+7),I,PSET
5030 PLAY "L200A"
5040 PUT(ABS(C)*8,A*8)-(ABS(C)*8+7,A*8+7),J,PSET
5050 DRAW "BM"+STR$(ABS(C)*8)+","+STR$(A*8)+";C3;R8;D1;L8;D1;R8;D1"
5060 DRAW "L8;D1;R8;D1;L8;D1;R8;D1;L8"
5070 NEXT A
5080 DRAW "BM"+STR$(ABS(C)*8)+",103;C2;R8;L2;U2;D2;L2;U3"
5090 F=F+1
5100 IF F=30 THEN END
5110 RETURN
5120 REM***************************
8990 REM DEFINE CHARACTERS
9000 REM
9030 PCLS
9040 DIM B(7,7)
9050 GET(0,0)-(7,7),B,G
9060 DRAW "BM0,0;C1;R8;D1;L8;D1;R8;D1;L8;D1;R8;D1;L8;D1;R8;D1;L8"
9070 DIM C(7,7)
9080 GET(0,G)-(7,7),C,G
9090 PCLS
9100 DRAW "BM0,0;C2;F8"
9110 DIM D(7,7)
9120 GET(0,0)-(7,7),D,G
9130 PCLS
9140 DRAW "BM0,0;C2;BR8;G8"
9150 DIM E(7,7)
9160 GET(0,0)-(7,7),E,G
9170 PCLS
9180 DRAW "BM0,0;C2;R8;D1;L8;D1;R8;D1;L8;D1;R8;D1;L8;D1;R8;D1;L8"
9190 DIM F(7,7)
9200 GET(0,0)-(7,7),F,G
9210 PCLS
9220 DRAW "BM0,0;C2;BD1;BR1;R6;D6;L6;U6"
9225 DIM G(7,7)
9230 GET(0,0)-(7,7),G,G
9240 PCLS
9290 DRAW "BM0,0;C2;BD2;BR2;R4;D1;L4;D1;R4;D1;L4"
9295 DIM I(7,7)
9300 GET(0,0)-(7,15),I,G
9310 PCLS
9320 DRAW "BM0,0;C2;F8;BU8;G8"
9330 DIM J(7,7)
9340 GET(0,0)-(7,7),J,G
9350 PCLS
9360 DIM K(8,8)
9370 GET(0,0)-(8,8),K,G
9380 RETURN
```

```
10 REM QUACMAN
20 REM COPYRIGHT FRED HARRIS
25 REM TANDY/DRAGON VERSION: MIKE MOORE
30 REM****************************
40 REM INITIALISE AND DRAW SCENE
50 GOSUB 1000
60 REM****************************
70 REM MAKE FIRST HOLE
80 GOSUB 2000
90 REM****************************
100 REM REPEAT UNTIL QUACMAN THROUGH MAZE
120 REM MOVE QUACMAN
130 GOSUB 3000
140 IF C<28 THEN GOTO 130
155 PRINT@(30+(R*32)),"Q";
160 PRINT@448,"TIME TAKEN=";TIME;
170 REM****************************
180 END
190 REM****************************
990 REM INITIALISE
1000 LET TI=0
1010 LET R=0
1020 LET C=0
1030 FOR N=1 TO 15
1040 PRINT "I I I I I I I I I I I I I I I "
1050 NEXT N
1060 RETURN
1070 REM****************************
1990 REM MAKE A HOLE
2000 IF C>28 THEN RETURN
2010 LET H=RND(12)+1
2020 PRINT@((C+2)+(H+32)),"  ";
2030 RETURN
2040 REM****************************
2990 REM MOVE
3000 PRINT@(C+(R*32)+1),"Q";
3010 PLAY "O3L20C"
3020 LET TIME=TIME+1
3030 PRINT@(C+(R*32)+1)," ";
3035 LET KEY$=INKEY$
3040 IF KEY$="Z" AND R=H THEN LET C=C+2:GOSUB 2000
3050 IF KEY$=";" THEN LET R=R-1
3060 IF KEY$="." THEN LET R=R+1
3070 IF R<0 THEN LET R=0
3080 IF R>14 THEN LET R=14
3090 END

10 REM MATCHEM
20 REM COPYRIGHT FRED HARRIS
25 REM TANDY/DRAGON VERSION: MIKE MOORE
30 REM****************************
45 REM INITIALISE
50 GOSUB 1000
60 REM****************************
105 REM CHOOSE FIRST CARD
110 GOSUB 2000
120 LET FG=I:LET N1=N: LET M1=M
130 REM****************************
135 REM CHOOSE SECOND CARD
140 GOSUB 2000
150 IF I=FG THEN 140
152 REM****************************
```

```
154 REM SHOW CARD
155 GOSUB 3000
170 LET G=G+1
182 FOR T=I TO DE:NEXT T
183 REM*****************************
185 REM CHECK FOR MATCH
190 GOSUB 4000
200 IF MATCH=1 THEN GOSUB 5000
205 REM IF CARDS DO NOT MATCH
210 IF MATCH=0 THEN GOSUB 6000
230 PRINT@480,"TRIES ";G;"SCORE";S;
250 IF S<10 THEN 110
260 REM*****************************
270 END
278 REM **SUBROUTINES**
990 REM INITIALISE ROUTINE
1000 CLS
1010 LET G=0
1020 LET A$="AABBCCDDEEFFGGHHIIJJ"
1030 LET J$=""
1035 LET DE=2500
1040 REM*****************************
1050 REM SHUFFLE
1055 FOR K=1 TO 20
1060 LET L=LEN(A$)
1080 LET L=RND(L)
1090 LET J$=J$+MID$(A$,N,1)
1100 LET A$=LEFT$(A$,N-1)+RIGHT$(A$,L-N)
1105 NEXT K
1110 REM*****************************
1120 REM DISPLAY BACKS
1130 FOR N = 0 TO 4
1140 FOR M = 0 TO 3
1148 LET PO=(N*4+5)+((3*N)*32)
1149 LET V=N+5*M+1
1150 PRINT@PO,STR$(V);
1160 NEXT M
1170 NEXT N
1180 RETURN
1190 REM*****************************
1990 REM CHOOSE A CARD
2000 PRINT@416,"            ";
2007 PRINT@416,"";
2010 INPUT I
2015 LET I=INT(I)
2020 IF I<1 OR I>20 THEN 2000
2022 LET C$=MID$(J$,I,1): REM FIND CARD
2023 IF C$="-" THEN 2000
2025 PRINT@416,"            ";
2040 LET M=INT((I-1)/5)
2050 LET N=I-5*M-1
2070 RETURN
2090 REM*****************************
2990 REM SHOW CARD
3000 IF C$="A" THEN LET X$="++":LET Y$="++"
3010 IF C$="B" THEN LET X$="%%":LET Y$="%%"
3020 IF C$="C" THEN LET X$="$$":LET Y$="$$"
3030 IF C$="D" THEN LET X$="II":LET Y$="II"
3040 IF C$="E" THEN LET X$="@@":LET Y$="@@"
3050 IF C$="F" THEN LET X$="XX":LET Y$="XX"
3060 IF C$="G" THEN LET X$="**":LET Y$="**"
3070 IF C$="H" THEN LET X$=")(":LET Y$=")("
3080 IF C$="I" THEN LET X$="==":LET Y$="=="
3090 IF C$="J" THEN LET X$="##":LET Y$="##"
3095 PRINT@((5+N*4)+(3*M)*32),X$;" ";
3100 PRINT@((5+N*4)+(3*M+1)*32),Y$;
3110 RETURN
```

```
+------------------------------+
l These lines work as follows:l
l N*4+5 will give 4 spaces perl
l card across the screen and  l
l (3*N)*32 will give 3 spaces l
l per card down the screen    l
l since the screen is 32      l
l columns wide.               l
l                             l
l N+5*M+1 will give the numberl
l for the back of each card inl
l the range 1 to 20.          l
+------------------------------+
```

```
3120 REM*****************************
3990 REM CHECK FOR MATCH
4000 LET MATCH = 0
4010 IF MID$(J$,FG,1)=MID$(J$,I,1) THEN MATCH = 1
4020 RETURN
4030 REM*****************************
4990 REM IF CARDS DO MATCH
5000 LET J$=LEFT$(J$,FG-1)+"-"+RIGHT$(J$,LEN(J$)-FG)
5010 LET J$=LEFT$(J$,I-1)+"-"+RIGHT$(J$,LEN(J$)-I)
5020 LET S=S+1
5030 PLAY "O3L16CDEFGABO4L8C"
5040 RETURN
5050 REM*****************************
5990 REM IF CARDS DO NOT MATCH
6000 PLAY"O1L4E"
6010 PRINT@(5+N1*4+(3*M1)*32),FG;" ";
6020 PRINT@(5+N1*4+(3*M1+1)*32)," ";
6030 PRINT@(5+N*4+(3*M)*32),I;" ";
6040 PRINT@(5+N*4+(3*M+1)*32)," ";
6080 RETURN
```

The MTX has a four line 'editor' window where program lines can be written and changed. Unfortunately the editor is rather too eager to claim back its window when a program has finished. This may (and usually does) result in the loss of information which may be required. The best way to combat this is not to end the program! A routine is included within the MTX programs to hold the editor off while the user decides whether the information is required. This uses the BASIC function INKEY$ which will strobe the keyboard to see if a key has been pressed. I have inserted this in the form of a question asking if you want another go at the game concerned.

```
10 REM MONSTERZAP
12 REM CORE LISTING
20 COPYRIGHT FRED HARRIS
25 REM MTX VERSION: MIKE MOORE
30 REM*************************.
40 REM INITIALISE
50 GOSUB 1000
60 REM*************************
100 REM DRAW SCENE
110 GOSUB 3000
120 REM*************************
150 REM MAIN MOVEMENT LOOP
160 FOR C = 0 TO 38
170 CSR C,R :PRINT "*"
180 FOR T=0 TO DELAY:NEXT T
185 LET KEY$ = INKEY$:IF KEY$="" THEN LET Z=1
190 IF Z=1 AND (KEY$="F" OR KEY$ = "f") THEN LET Z=0:GOSUB 5000
200 CSR C,R: PRINT " "
210 NEXT C
220 GOTO 160
230 REM*************************
240 STOP
250 REM*************************
990 REM INITIALISE
1000 LET R = 2
1010 LET F = 0
1020 LET DELAY = 25
1080 RETURN
1090 REM*************************
2990 REM DRAW SCENE
3000 CSR 0,10: PRINT "HH      HH      HH      HH      HH      HH "
3010 CSR 0,11: PRINT "HH \ / HH \ / HH \ / HH \ / HH \ / HH "
3020 CSR 0,12: PRINT "HH O*O HH O*O HH O*O HH O*O HH O*O HH "
3030 CSR 0,13: PRINT "HH < > HH < > HH < > HH < > HH < > HH "
3410 CSR 0,18: PRINT "O    SHOTS USED"
3420 RETURN
3430 REM*************************
4990 REM ZAP
5000 FOR I = 10 TO 13
5040 CSR C,I: PRINT " "
5050 NEXT I
5080 LET F=F+1
5090 CSR 0,18: PRINT F
6000 IF F = 40 THEN STOP
6010 RETURN
```

```
10 REM MONSTERZAP IMPROVED
12 VERSION 2
20 REM COPYRIGHT FRED HARRIS
25 REM MTX VERSION: MIKE MOORE
35 REM*************************
40 REM INITIALISE
50 GOSUB 1000
60 REM*************************
70 REM INSTRUCTIONS
80 GOSUB 2000
90 REM*************************
100 REM DRAW SCENE
110 GOSUB 3000
120 REM*************************
150 REM MAIN MOVEMENT LOOP
160 FOR C=-30 TO 30
170 CSR ABS(C),R:PRINT CHR$(148)
180 FOR T=1 TO 25:NEXT T
185 LET KEY$=INKEY$:IF K$<>"F" AND K$="f" THEN LET Z=1
190 IF Z=1 AND KEY$="F" OR KEY$="f" THEN LET Z=0:GOSUB 5000
200 CSR ABS(C),R:PRINT " "
210 NEXT C
220 GOTO 160:REM REPEAT MAIN LOOP
225 CSR 0,23:PRINT "DO YOU WANT ANOTHER GO? (Y/N)"
226 IF INKEY$="" OR INKEY$="F" OR INKEY$="f" THEN GOTO 226
227 IF INKEY$="Y" OR INKEY$="y" THEN RUN
230 REM*************************
240 STOP
250 REM*************************
260 REM SUBROUTINES
270 REM*************************
990 REM INITIALISATION
1000 LET R=3
1005 VS 4:CLS
1010 GENPAT 1,147,255,231,231,231,255,231,255,255
1015 GENPAT 2,147,240,240,240,240,240,240,240,240
1020 GENPAT 1,148,129,219,165,153,153,165,219,129
1025 GENPAT 2,148,240,240,240,240,240,240,240,240
1030 GENPAT 1,149,36,0,36,255,0,0,0,0
1035 GENPAT 2,149,65,65,65,65,65,65,65,65
1040 GENPAT 1,150,0,0,0,0,0,0,133,137,255
1042 GENPAT 2,150,240,240,240,240,240,240,240,240
1043 GENPAT 1,151,0,0,0,0,0,0,0,0,0
1046 GENPAT 2,151,2,2,2,2,2,2,2,2,2
1070 LET F=0
1080 RETURN
1090 REM*************************
1990 REM INSTRUCTIONS
2000 CSR 8,3:PRINT "MONSTERZAP"
2010 CSR 6,5:PRINT "Press F to fire"
2015 CSR 7,7:PRINT "Only 40 shots"
2020 CSR 1,23:PRINT "Press any key to start"
2030 IF INKEY$="" THEN GOTO 2030
2060 CLS
2070 RETURN
2080 REM*************************
2990 REM DRAW SCENE
3000 REM DRAW GROUND
3010 REM VS 4:CLS:CSR 0,14
3020 FOR A=1 TO 8*36
3030 PRINT CHR$(151);
3040 NEXT A
```

```
3050 REM MONSTERS
3055 INK 15
3060 FOR N=0 TO 3
3070 CSR 7*N+4,11:PRINT "\ /"
3080 CSR 7*N+4,12:PRINT "O";CHR$(147);"O"
3090 CSR 7*N+4,13:PRINT CHR$(147);" ";CHR$(147)
3095 NEXT N
3100 REM SKY
3110 INK 15
3120 CSR 2,19:PRINT "O    SHOTS USED"
3130 REM SKYSCRAPERS
3135 FOR L=10 TO 13
3140 FOR N=0 TO 4
3150 CSR 7*N+1,L:PRINT CHR$(149);CHR$(149)
3160 NEXT N
3165 NEXT L
3170 RETURN
3180 REM*************************
4990 REM FIRE
5000 SOUND 0,100,10
5010 FOR L=8 TO 13
5020 CSR ABS(C),L:PRINT "*"
5030 CSR ABS(C),L:PRINT "X"
5040 CSR ABS(C),L:PRINT " "
5050 NEXT L
5053 SOUND 0,0,0
5055 REM
5060 CSR ABS(C),13:PRINT CHR$(150)
5070 LET F=F+1
5080 CSR 2,19: PRINT F
5090 IF F=40 THEN GOTO 225
5100 RETURN

10 REM QUACMAN
20 REM COPYRIGHT FRED HARRIS
25 REM MTX VERSION: MIKE MOORE
30 REM***************************
40 REM INITIALISATION
50 GOSUB 1000
60 REM***************************
70 REM MAKE FIRST HOLE
80 GOSUB 2000
90 REM***************************
100 REM REPEAT UNITL QUACMAN THROUGH MAZE
120 REM MOVE QUACMAN THROUGH THE MAZE
130 GOSUB 3000
140 IF C<29 THEN GOTO 130
150 REM***************************
155 CSR 38,R:PRINT "Q"
160 CSR 0,20:PRINT "TIME TAKEN=";VAL(TIME$)
180 CSR 0,22:PRINT "DO YOU WANT ANOTHER GO? (Y/N)":LET A$=INKEY$
185 IF A$="Y" OR A$="y" THEN RUN
186 IF A$<>"N" OR A$<>"n" THEN GOTO 180
190 REM***************************
200 STOP
210 REM***************************
220 REM SUBROUTINES
230 REM***************************
990 REM INITIALISE
1000 CLOCK "000000"
1005 VS 4:CLS
1020 LET C=1
```

```
+------------------------+
l Lines 3070-3090 and    l
l line 3150 involve a    l
l certain amount of maths l
l to print the characters l
l in the correct places. l
l There are 7 character  l
l positions for each set l
l of monsters and sky-   l
l scrapers.  Thus, N*7 is l
l used to give that place l
l The +4 leaves room for l
l the skyscrapers as the l
l monsters are being     l
l printed.               l
+------------------------+
```

```
1030 FOR N=1 TO 20
1040 PRINT "I I I I I I I I I I I I I I"
1050 NEXT N
1060 GENPAT 1,147,0,0,0,0,0,0,0,0
1070 GENPAT 2,147,102,102,102,102,102,102,102,102
1080 RETURN
1090 REM***************************
1990 REM MAKE A HOLE
2000 IF C>28 THEN RETURN
2010 LET H=INT(RND*19)+1
2020 CSR C+1,H:PRINT CHR$(147)
2030 RETURN
2040 REM***************************
2990 REM MOVE
3000 CSR C,R:PRINT "Q"
3010 SOUND 1,600,10
3015 FOR T=1 TO 25:NEXT T
3016 SOUND 1,600,0
3020 LET KEY$=INKEY$
3030 CSR C,R:PRINT " "
3040 IF ASC(KEY$)=25 THEN IF R=H THEN LET C=C+2:GOSUB 2000
3050 IF ASC(KEY$)=11 THEN LET R=R-1
3060 IF ASC(KEY$)=10 THEN LET R=R+1
3070 IF R<0 THEN LET R=0
3080 IF R>19 THEN LET R=19
3090 RETURN


10 REM MATCHEM
20 REM COPYRIGHT FRED HARRIS
25 REM MTX VERSION: MIKE MOORE
30 REM***************************
40 REM INITIALISE
50 GOSUB 1000
105 REM ****CHOOSE FIRST CARD*****
110 GOSUB 2000
115 REM***************************
120 LET FG=I:LET M1=M:LET N1=N
124 REM *********SHOW CARD*********
125 GOSUB 3000
135 REM ****CHOOSE SECOND CARD*****
140 GOSUB 2000
150 IF I=FG THEN GOTO 140
154 REM *********SHOW CARD*********
155 GOSUB 3000
170 LET G=G+1
182 FOR T=1 TO D:NEXT T
185 REM CHECK FOR MATCH
190 GOSUB 4000
200 IF MA=1 THEN GOSUB 5000
205 REM IF CARDS DO NOT MATCH
210 IF MA=0 THEN GOSUB 6000
230 CSR 14,15:PRINT "TRIES";G
240 CSR 14,16:PRINT "SCORE";S
250 IF S<10 THEN GOTO 110
265 REM***************************
270 STOP
275 REM***********END*************
278 REM******SUBROUTINES*********
990 REM INITIALISE ROUTINE
1000 LET G=0
1010 LET S=0
1020 LET A$="AABBCCDDEEFFGGHHIIJJ"
```

```
1030 LET J$=""
1035 LET D=2500
1050 REM********SHUFFLE************
1060 FOR K=1 TO 20
1070 LET L=LEN (A$)
1080 LET N=INT(RND*L)+1
1090 LET J$=J$+MID$(A$,N,1)
1100 LET A$=LEFT$(A$,N-1)+RIGHT$(A$,L-N)
1110 NEXT K
1120 REM*******DISPLAY BACKS********
1130 FOR N=0 TO 4
1140 FOR M=0 TO 3
1150 CSR 3*N+10,3*M:PRINT N+5*M+1
1160 NEXT M
1170 NEXT N
1180 RETURN
1990 REM********CHOOSE A CARD*******
2000 CSR 0,18:PRINT "                    ":REM 20 SPACES
2010 CSR 0,18:INPUT I
2015 LET I=INT(I)
2020 IF I<1 OR I>20 THEN GOTO 2000
2025 LET C$=MID$(J$,I,1):REM FIND CHOSEN CARD
2030 IF C$="-" THEN GOTO 2000
2040 CSR 0,18:PRINT "                    ":REM 20 SPACES
2050 LET M=INT((I-1)/5)
2060 LET N=I-5*M-1
2070 RETURN
2990 REM********SHOW CARD**********
3000 IF C$="A" THEN LET X$="++":LET Y$="++"
3010 IF C$="B" THEN LET X$="/\":LET Y$="\/"
3020 IF C$="C" THEN LET X$="[]":LET Y$="[]"
3030 IF C$="D" THEN LET X$="II":LET Y$="II"
3040 IF C$="E" THEN LET X$="@@":LET Y$="@@"
3050 IF C$="F" THEN LET X$="XX":LET Y$="XX"
3060 IF C$="G" THEN LET X$="**":LET Y$="**"
3070 IF C$="H" THEN LET X$=")(":LET Y$=")("
3080 IF C$="I" THEN LET X$="==":LET Y$="=="
3090 IF C$="J" THEN LET X$="00":LET Y$="00"
3095 CSR 3*N+11,3*M:PRINT X$
3100 CSR 3*N+11,3*M+1:PRINT Y$
3110 RETURN
3990 REM*****CHECK FOR MATCH********
4000 LET MA=0
4010 IF MID$(J$,FG,1)=MID$(J$,I,1) THEN LET MA=1
4020 RETURN
4990 REM*****IF CARDS DO MATCH******
5000 LET J$=LEFT$(J$,FG-1)+"-"+RIGHT$(J$,LEN (J$)-FG)
5010 LET J$=LEFT$(J$,I-1)+"-"+RIGHT$(J$,LEN (J$)-I)
5020 LET S=S+1
5030 FOR I=200 TO 1 STEP -1
5040 SOUND 1,I*10,I*10
5050 NEXT I
5055 SOUND 1,0,0
5060 RETURN
5990 REM***IF CARDS DO NOT MATCH****
6000 SOUND 1,600,10
6010 FOR Z=1 TO 200:NEXT Z
6020 SOUND 1,0,0
6040 CSR 3*N1+10,3*M1:PRINT FG;" "
6050 CSR 3*N1+10,3*M1+1:PRINT "   ":REM 3 SPACES
6060 CSR 3*N+10,3*M:PRINT I;" "
6070 CSR 3*N+10,3*M+1:PRINT "   ":REM 3 SPACES
6080 RETURN
```

```
+-------------------------+
l These lines work as     l
l follows:- 3*N will give l
l 3 spaces per card, the  l
l +10 moves the cards overl
l to a central position.  l
l N+5*M+1 will give the   l
l numbers for the back of l
l the cards from 1 to 20. l
+-------------------------+
```

For some programs I have been unable to prevent unwanted characters from appearing on the screen. Whether this is due to a bug contained within particular machines that I have been using here at the College or not, only Oric can say. Also, the manual does not indicate any way in which the cursor can be turned off; so the games can look a bit messy as the cursor flashes up and down printing the bomb!

Of all the computers featured in this booklet, the Oric is the only one that had any degree of language compatability with the Electron, Notably with the commands REPEAT and UNTIL.

```
10 REM MONSTERZAP
12 CORE LISTING
20 REM COPYRIGHT FRED HARRIS
25 REM ORIC VERSION: MIKE MOORE
30 REM***************************
40 REM INITIALISE
50 GOSUB 1000
60 REM***************************
100 REM DRAW SCENE
110 GOSUB 3000
120 REM***************************
150 REN MAIN LOOP MOVEMENT
155 REPEAT
160 FOR C = 2 TO 39
170 PRINT@C,R;"*"
180 FOR T=1 TO DELAY : NEXT T
185 K$=KEY$:IF K$="" THEN Z=1
190 IF Z=1 AND K$ = "F" THEN Z=0:GOSUB 5000
200 PRINT@C,R;" "
210 NEXT C
220 UNTIL FALSE:REM REPEAT MAIN LOOP
230 REM***************************
240 STOP
250 REM***************************
990 REM INITIALISE
1000 R=2
1010 F=0
1020 DELAY=25
1030 CLS
1080 RETURN
1090 REM***************************
2990 REM DRAW SCENE
3000 PRINT@2,10;"HH      HH      HH      HH      HH      HH "
3010 PRINT@2,11;"HH \ / HH \ / HH \ / HH \ / HH \ / HH "
3020 PRINT@2,12;"HH O*O HH O*O HH O*O HH O*O HH O*O HH "
3030 PRINT@2,13;"HH < > HH < > HH < > HH < > HH "
3410 PRINT@2,18;"O   SHOTS USED"
3420 RETURN
3430 REM***************************
4990 REM ZAP
5000 FOR I = 10 TO 13
5010 PRINT@C,I;" "
5050 NEXT I
5080 F=F+1
5090 PRINT@2,18;F
6000 IF F = 40 THEN END
6010 RETURN
```

```
10 REM MONSTERZAP IMPROVED
20 REM COPYRIGHT FRED HARRIS
25 REM ORIC VERSION: MIKE MOORE
30 REM***************************
40 REM INITIALISE
50 GOSUB 1000
60 REM***************************
100 REM DRAW SCENE
110 GOSUB 3000
120 REM***************************
150 REM MAIN LOOP MOVEMENT
155 REPEAT
160 FOR C=-39 TO 39
165 IF C=0 OR ABS(C)=1 THEN NEXT C
170 PRINT@ABS(C),2;"B"
180 FOR T=1 TO DELAY: NEXT T
185 K$="":A$=KEY$:IF K$="" THEN Z=1
190 IF K$="F" THEN IF Z=1 THEN Z=0:GOSUB 5000
200 PRINT@ABS(C),2;" "
210 NEXT C
220 UNTIL FALSE
240 STOP
250 REM***************************
990 REM INITIALISE
1000 REM
1010 F=0
1020 DELAY=25
1030 CLS
1040 GOSUB 9000
1080 RETURN
1090 REM***************************
2990 REM DRAW SCENE
3000 REM MONSTERS
3010 FOR N=0 TO 4
3020 PRINT@N*7+5,11;"\ /"
3030 PRINT@N*7+5,12;"OAO"
3040 PRINT@N*7+5,13;"A A"
3050 NEXT N
3060 REM SKYSCRAPERS
3070 FOR N=0 TO 5
3080 FOR M=10 TO 13
3090 PRINT@N*7+2,M;"CC"
3100 NEXT M
3110 NEXT N
3410 PRINT@2,18;"0    SHOTS GONE"
3420 RETURN
3430 REM***************************
4990 REM ZAP
5000 FOR I=10 TO 13
5005 SOUND 1,100,10
5007 PRINT@ABS(C),I;"*"
5008 PRINT@ABS(C),I;"X"
5009 SOUND 1,0,0
5010 PRINT@ABS(C),I;" "
5050 NEXT I
5055 PRINT@ABS(C),13;"D"
5080 F=F+1
5090 PRINT@2,18;F
6000 IF F=40 THEN END
6010 RETURN
6020 REM***************************
```

```
+------------------------------+
l Lines 3020-3040 and line 3090l
l involve a certain amount of  l
l maths to position the        l
l characters in the correct    l
l places.  There are 7 positionl
l for each group of skyscrapersl
l and monsters.  Thus, N*7 is  l
l used to give that place.  Thel
l +3 leaves room for the sky-  l
l scrapers as the monsters are l
l being printed.               l
+------------------------------+
```

```
8990 REM REDEFINE CHARACTERS
9000 FOR A=46600 TO 46600+4*8-1
9010 READ B
9020 POKE A,B
9030 NEXT A
9040 DATA 255,231,231,231,255,231,255,255
9050 DATA 129,219,165,153,153,165,219,129
9060 DATA 36,0,36,255,0,0,0,0
9070 DATA 0,0,0,0,0,133,137,255
9080 RETURN


10 REM QUACMAN
20 REM COPYRIGHT FRED HARRIS
25 REM ORIC VERSION: MIKE MOORE
30 REM*******************************
40 REM INITIALISE AND DRAW SCENE
50 GOSUB 1000
60 REM*******************************
70 REM MAKE FIRST HOLE
80 GOSUB 2000
90 REM*******************************
100 REM REPEAT UNTIL QUACMAN THROUGH MAZE
120 REM MOVE QUACMAN
125 REPEAT
130 GOSUB 3000
140 UNTIL C=36
155 PRINT@18,R;"Q"
160 PRINT@0,25;"TIME TAKEN=";T
170 REM*******************************
180 END
190 REM*******************************
200 REM **********END**********
220 REM ********SUBROUTINES******
990 REM INITIALISE
1000 LET T=0
1005 CLS
1010 LET R=1
1020 LET C=2
1030 FOR N=1 TO 20
1040 PRINT " I I I I I I I I I I I I I I I I I I"
1050 NEXT N
1060 RETURN
1070 REM*******************************
1990 REM MAKE A HOLE
2000 IF C>36 THEN RETURN
2010 LET H=INT(RND(9)*18)+2
2020 PRINT@C+1,H;" "
2030 RETURN
2040 REM*******************************
2990 REM MOVE
3000 PRINT@C,R;"Q"
3010 PLAY 1,0,1,100
3015 FOR D=1 TO 25:NEXT D
3020 LET T = T + 1
3030 PRINT@C,R;" ";
3035 LET K$=KEY$
3040 IF K$="Z" AND R=H THEN LET C=C+2:GOSUB 2000
3050 IF K$=";" THEN LET R=R-1
3060 IF K$="." THEN LET R=R+1
3070 IF R<1 THEN LET R=1
3080 IF R>20 THEN LET R=20
3090 RETURN
```

```
10 REM MATCHEM
20 REM COPYRIGHT FRED HARRIS
25 REM ORIC VERSION: MIKE MOORE
30 REM*******************************
45 REM INITIALISE
50 GOSUB 1000
60 REM*******************************
105 REM CHOOSE FIRST CARD
107 REPEAT
110 GOSUB 2000
120 FG=I:N1=N:M1=M
122 REM*******************************
124 REM SHOW CARD
125 GOSUB 3000
135 REM CHOOSE SECOND CARD
137 REPEAT
140 GOSUB 2000
150 UNTIL I<>FG
152 REM*******************************
155 REM SHOW CARD
160 GOSUB 3000
170 G=G+1
182 FOR Z=1 TO D:NEXT Z
183 REM*******************************
185 REM CHECK FOR MATCH
190 GOSUB 4000
200 IF MA=1 THEN GOSUB 5000
205 REM IF CARDS DO NOT MATCH
210 IF MA=0 THEN GOSUB 6000
230 PRINT@14,19;"TRIES";G
240 PRINT@14,20;"SCORE";S
250 UNTIL S=10
260 REM*******************************
270 END
278 REM ********SUBROUTINES********
990 REM INITIALISE ROUTINE
1000 REM
1005 CLS
1010 G=0
1020 S=0
1030 A$="AABBCCDDEEFFGGHHIIJJ"
1035 D=2500
1040 J$=""
1050 REM SHUFFLE
1055 FOR K = 1 TO 20
1060 L=LEN(A$)
1080 N=INT(RND(9)*L)+1
1090 J$=J$+MID$(A$,N,1)
1100 A$=LEFT$(A$,N-1)+RIGHT$(A$,L-N)
1105 NEXT K
1120 REM DISPLAY BACKS
1130 FOR N=0 TO 4
1140 FOR M=0 TO 3
1150 PRINT@3*N+2,3*M;N+5*M+1
1160 NEXT M
1170 NEXT N
1180 RETURN
1190 REM*******************************
1990 REM CHOOSE A CARD
2000 REPEAT
2005 REPEAT
2007 PRINT@2,20;"
```

+------------------------------+
l These lines work as follows:l
l 3*N will give 3 spaces per l
l card, the +2 moves the card l
l to a central position.   l
l N+5*M+1 will give the numberl
l for the back of each card.   l
+------------------------------+

```
2010 PRINT@2,20;"";:INPUT I
2015 I=INT(I)
2020 UNTIL I>=1 AND I<=20
2022 C$=MID$(J$,I,1): REM FIND CHOSEN CARD
2023 UNTIL C$<>"-"
2025 PRINT@2,20;"      "
2040 M=INT((I-1)/5)
2050 N=I-5*M-1
2070 RETURN
2080 REM*******************************
2990 REM SHOW CARD
3000 IF C$="A" THEN X$="++":Y$="++"
3010 IF C$="B" THEN X$="/\":Y$="\/"
3020 IF C$="C" THEN X$="[]":Y$="[]"
3030 IF C$="D" THEN X$="II":Y$="II"
3040 IF C$="E" THEN X$="@@":Y$="@@"
3050 IF C$="F" THEN X$="XX":Y$="XX"
3060 IF C$="G" THEN X$="**":Y$="**"
3070 IF C$="H" THEN X$=")(":Y$=")("
3080 IF C$="I" THEN X$="==":Y$="=="
3090 IF C$="J" THEN X$="OO":Y$="OO"
3095 PRINT@3*N+3,3*M;X$
3100 PRINT@3*N+3,3*M+1;Y$
3110 RETURN
3120 REM*******************************
3990 REM CHECK FOR MATCH
4000 LET MA=0
4010 IF MID$(J$,FG,1)=MID$(J$,I,1) THEN LET MA=1
4020 RETURN
4030 REM*******************************
4990 REM IF CARDS DO MATCH
5000 LET J$=LEFT$(J$,FG-1)+"-"+RIGHT$(J$,LEN(J$)-FG)
5010 LET J$=LEFT$(J$,I-1)+"-"+RIGHT$(J$,LEN(J$)-I)
5020 LET S=S+1
5030 FOR Z=53 TO 63
5035 FOR A=100 TO 20 STEP -10
5040 SOUND 1,A,10
5050 FOR B=1 TO 50:NEXT B
5055 NEXT A:SOUND 1,0,0
5060 RETURN
5070 REM*******************************
5990 REM IF CARDS DO NOT MATCH
6000 SOUND 2,100,15
6005 PLAY 2,0,100,10000
6010 FOR Z=1 TO 80
6020 NEXT Z
6025 PLAY 1,0,0,0
6040 PRINT@3*N1+2,3*M1;FG;"  "
6050 PRINT@3*N1+2,3*M1+1;"  "
6060 PRINT@3*N+2,3*M;I;"  "
6070 PRINT@3*N+2,3*M+1;"  "
6080 RETURN
```

SHARP 700 SECTION

The SHARP 700 does not have any user defined graphics or sprites, but compensates for this by having a ROM character set which includes almost everything that you could want when you are programming in BASIC. Colou is easily defined for each character and this machine was actually the easiest computer to translate for. The cursor keys have character codes which makes them simple to include in a program.

If you see any characters that are used in a PRINT statement enclosed by brackets, i.e. PRINT "(GRAPHIC)U", you should press the appropriate function key on your computer.

(GRAPHIC) is the GRAPHIC key on the left side of the micro. Always remember to press the ALPHA key above it to return back to normal characters.
(SPACE)   has been used to denote the space bar as a matter of clari when included in a confusing PRINT statement.

Any numbers contained within the brackets indicates the number of times that the following key (or keys) should be pressed. Note though, that t SHARP does use brackets in PRINT statements for its colour commands, although these will not be in quotation marks.

```
10 REM MONSTERZAP
12 REM CORE LISTING
20 REM COPYRIGHT FRED HARRIS
25 REM SHARP 700 VERSION- MIKE MOORE
30 REM*************************
40 REM INITIALISE
50 GOSUB 1000
100 REM*******:DRAW SCENE**********
110 GOSUB 3000
120 REM*************************
150 REM MAIN MOVEMENT LOOP
160 FOR C=0 TO 39
170 CURSOR C,R:PRINT "*";
180 FOR T=0 TO DELAY:NEXT T
185 GET KEY$
190 IF KEY$="F" THEN GOSUB 5000
191 IF KEY$="f" THEN GOSUB 5000
200 CURSOR C,R:PRINT " ";
210 NEXT C
220 GOTO 160
230 REM*************************
240 END
250 REM*************************
990 REM INITIALISE
1000 LET R=2
1005 CLS
1010 LET F=0
1020 LET DELAY=25
1080 RETURN
2990 REM******DRAW SCENE**********
3000 CURSOR 0,10:PRINT "HH    HH    HH    HH    HH    HH    HH "
3010 CURSOR 0,11:PRINT "HH \ / HH \ / HH \ / HH \ / HH \ / HH "
3020 CURSOR 0,12:PRINT "HH O*O HH O*O HH O*O HH O*O HH O*O HH "
3030 CURSOR 0,13:PRINT "HH < > HH < > HH < > HH < > HH < > HH "
3410 CURSOR 0,18:PRINT "O    SHOTS USED"
3420 RETURN
4990 REM**********ZAP************
5000 FOR I=10 TO 13
5040 CURSOR C,1:PRINT " "
5050 NEXT I
5080 LET F=F+1
5090 CURSOR 0,18:PRINT F
6000 IF F=40 THEN END
6010 RETURN
```

```
10 REM MONSTERZAP IMPROVED
12 REM VERSION 2
20 REM COPYRIGHT FRED HARRIS
25 REM SHARP 700 EDITION: MIKE MOORE
30 REM*****************************
40 REM INITIALISE
50 GOSUB 1000
60 REM*****************************
70 REM IMSTRUCTIONS
80 GOSUB 2000
100 REM DRAW SCENE
110 GOSUB 3000
150 REM*****MAIN MOVEMENT LOOP******
160 FOR C= -39 TO 39
170 CURSOR ABS(C),PRINT (7,5) CHR$(96)
180 FOR T=1 TO DELAY:NEXT T
185 GET K$
190 IF K$ = "F" THEN GOSUB 5000
191 IF K$ = "f" THEN GOSUB 5000
200 CURSOR ABS(C),R:PRINT (,5) " "
210 NEXT C
220 GOTO 160:REM REPEAT MAIN LOOP
240 END
990 REM********INITIALISE***********
1000 LET R=2
1003 COLOR ,,,5
1005 CLS
1010 LET F=0
1020 LET DELAY=15
1080 RETURN
1990 REM*******INSTRUCTIONS**********
2000 CURSOR 15,3:PRINT "MONSTERZAP"
2010 CURSOR 12,5:PRINT "Press F to fire"
2015 CURSOR 13,7:PRINT "Only 40 shots"
2020 CURSOR 4,20:PRINT "PRESS ANY KEY WHEN YOU ARE READY"
2030 GET D$:IF D$="" THEN 2030
2060 CLS
2070 RETURN
2990 REM*******DRAW SCENE***********
3000 COLOR ,,,4:CLS
3020 FOR X=1 TO 14
3030 PRINT (7,5) "  I I I I I I I I I I I I I I I I I I I I I";
3040 NEXT X
3300 FOR N=0 TO 4
3310 CURSOR N*7+3,10:PRINT (0,5) "\ /"
3320 CURSOR N*7+3,11:PRINT (0,5) "(";CHR$(104);")"
3330 CURSOR N*7+3,12:PRINT (0,5) "< >"
3340 NEXT N
3350 FOR N=0 TO 5
3360 FOR M=9 TO 12
3370 CURSOR N*7,M:PRINT CHR$(149);CHR$(149)
3380 NEXT M
3390 NEXT N
3400 RETURN
3460 REM**************************
4990 REM ZAP
5000 FOR I = 8 TO 12
5020 CURSOR ABS(C),I:PRINT (7,5) "*"
5023 TEMPO 7
5025 MUSIC "BO"
5030 CURSOR ABS(C),I:PRINT (7,5) "X"
5040 CURSOR ABS(C),I:PRINT (7,5) " "
5050 NEXT I
5060 CURSOR ABS(C),I-1:PRINT (0,5) "74"
5080 LET F=F+1
5090 CURSOR 0,18: PRINT F
6000 IF F=40 THEN END
6010 RETURN
```

```
+----------------------+
l Lines 3310-3330 and  l
l line 3370 involve a   l
l certain amount of     l
l maths to position the l
l characters in the     l
l correct places.       l
l There are 7 character l
l positions for each    l
l group of monsters and l
l skyscrapers. Thus,    l
l N*7 is used to give   l
l that place.  The +3   l
l leaves room for the   l
l skyscrapers as the    l
l monsters are being    l
l printed.              l
+----------------------+
```

```
10 REM QUACMAN
20 REM COPYRIGHT FRED HARRIS
25 REM MZ711 VERSION: MIKE MOORE
30 REM*************************
40 REM INITIALISE AND DRAW MAZE
50 GOSUB 1000
60 REM*************************
70 REM MAKE FIRST HOLE
80 GOSUB 2000
90 REM*************************
100 REM REPEAT UNTIL QUACMAN THROUGH MAZE
120 REM MOVE QUACMAN
130 GOSUB 3000
140 IF C<37 THEN 130
155 CURSOR 37,R:PRINT "Q"
160 CURSOR 0,22:PRINT "TIME TAKEN=";T
170 REM*************************
180 END
200 REM ***********END**********
220 REM ******SUBROUTINES*******
990 REM INITIALISE
1000 CLS
1010 LET R=0
1020 LET C=3
1030 FOR N=1 TO 22
1035 PRINT "    ";:REM 4 SPACES
1040 FOR M=1 TO 17:PRINT "(GRAPHIC)U(SPACE)";:NEXT M
1045 PRINT
1050 NEXT N
1060 RETURN
1070 REM*************************
1990 REM MAKE A HOLE
2000 IF C>36 THEN RETURN
2010 LET H=INT(RND(8)*20)+1
2020 CURSOR C+1,H:PRINT (,2) " "
2030 RETURN
2040 REM*************************
2990 REM MOVE
3000 CURSOR C,R:PRINT "Q"
3005 TEMPO 7
3010 MUSIC "AO"
3020 LET T=T+1
3030 CURSOR C,R:PRINT " "
3035 FOR A=1 TO 25:GET K$:IF K$="" THEN NEXT A
3040 IF ASC(K$)=19 THEN IF R=H THEN LET C=C+2:GOSUB 2000
3050 IF ASC(K$)=18 THEN LET R=R-1
3060 IF ASC(K$)=17 THEN LET R=R+1
3070 IF R<0 THEN LET R=0
3090 RETURN


10 REM MATCHEM
20 REM COPYRIGHT FRED HARRIS
25 REM SHARP 700 VERSION: MIKE MOORE
30 REM*************************
45 REM INITIALISE
50 GOSUB 1000
60 REM*************************
105 REM CHOOSE FIRST CARD
110 GOSUB 2000
120 LET FG=I:LET N1=N:LET M1=M
122 REM*************************
125 GOSUB 3000
130 REM*************************
```

```
135 REM CHOOSE SECOND CARD
150 IF FG=I THEN 140
152 REM*************************
154 REM SHOW CARD
155 GOSUB 3000
170 LET G=G+1
182 FOR T=1 TO DELAY:NEXT T
184 REM*************************
185 REM CHECK FOR MATCH
190 GOSUB 4000
200 IF MA=1 THEN GOSUB 5000
205 REM IF CARDS DO NOT MATCH
210 IF MA=0 THEN GOSUB 6000
230 CURSOR 14,19:PRINT "TRIES";G
240 CURSOR 14,20:PRINT "SCORE";S
250 IF S<10 THEN 110
260 REM*************************
270 END
290 REM *******SUBROUTINES********
990 REM INITIALISE
1000 CLS
1005 COLOR ,,0,7
1007 CLS
1010 LET G=0
1015 LET S=Q
1020 LET A$="AABBCCDDEEFFGGHHIIJJ"
1030 LET J$=""
1040 LET DELAY = 2500
1050 REM SHUFFLE
1055 FOR K=1 TO 20
1060 LET L=LEN(A$)
1080 LET N=INT(RND(8)*L)+1
1090 LET J$=J$+MID$(A$,N,1)
1100 LET A$=LEFT$(A$,N-1)+RIGHT$(A$,L-N)
1105 NEXT K
1120 REM DISPLAY BACKS            +---------------------------+
1130 FOR N=0 TO 4                 l These lines work as follows:l
1140 FOR M=0 TO 3                 l 3*N will give 3 spaces per l
1150 CURSOR 3*N+10,3*M:PRINT N+5*M+1  l card, the +10 moves the cardl
1160 NEXT M                       l over to a central position. l
1170 NEXT N                       l N+5*M+1 will give the numberl
1180 RETURN                       l for the back of each card.  l
1190 REM*************************  +---------------------------+
1990 REM CHOOSE A CARD
2000 CURSOR 0,18:PRINT "              ":REM 14 SPACES
2007 CURSOR 0.18
2010 INPUT I
2015 LET I=INT(I)
2020 IF I<1 THEN 2007
2021 IF I>20 THEN 2007
2022 LET C$=MID$(J$,I,1):REM FIND CHOSEN CARD
2023 IF C$="-" THEN 2007
2025 CURSOR 0,22:PRINT "   ":REM 3 SPACES
2040 LET M=INT((I-1)/5)
2050 LET N=I-5*M-1
2070 RETURN
2080 REM*************************
```

```
2990 REM SHOW CARD
3000 IF C$="A" THEN LET X$="++":LET Y$="++":LET F=0
3010 IF C$="B" THEN LET X$="/ ":LET Y$=" /":LET F=1
3020 IF C$="C" THEN LET X$="()":LET Y$="()":LET F=2
3030 IF C$="D" THEN LET X$="II":LET Y$="II":LET F=3
3040 IF C$="E" THEN LET X$="@@":LET Y$="@@":LET F=0
3050 IF C$="F" THEN LET X$="XX":LET Y$="XX":LET F=1
3060 IF C$="G" THEN LET X$="**":LET Y$="**":LET F=2
3070 IF C$="H" THEN LET X$=")(":LET Y$=")(":LET F=3
3080 IF C$="I" THEN LET X$="==":LET Y$="==":LET F=0
3090 IF C$="J" THEN LET X$="00":LET Y$="00":LET F=1
3095 CURSOR 3*N+11,3*M:PRINT (F,) X$
3100 CURSOR 3*N+11,3*M+1:PRINT (F,) Y$
3110 RETURN
3120 REM ****************************
3990 REM CHECK FOR MATCH
4000 LET MA=0
4010 IF MID$(J$,FG,1)=MID$(J$,I,1) THEN LET MA=1
4020 RETURN
4030 REM ****************************
4990 REM IF CARDS DO MATCH
5000 LET J$=LEFT$(J$,FG-1)+"-"+RIGHT$(J$,LEN(J$)-FG)
5010 LET J$=LEFT$(J$,I-1)+"-"+RIGHT$(J$,LEN(J$)-I)
5020 LET S=S+1
5030 TEMPO 1
5040 LET M$="CODOEOFOGOAOBO+C3"
5050 MUSIC M$
5060 RETURN
5070 REM ****************************
5990 REM IF CARDS DO NOT MATCH
6000 MUSIC "-C5"
6010 FOR Z=1 TO 100:NEXT Z
6040 CURSOR 3*N1+10,3*M1:PRINT FG;" "
6050 CURSOR 3*N1+11,3*M1+1:PRINT "  ":REM 2 SPACES
6060 CURSOR 3*N+10,3*M:PRINT I;" "
6070 CURSOR 3*N+11,3*M+1:PRINT "  ":REM 2 SPACES
6080 RETURN
```